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AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1-11. (Cancel)

12. (Previously Presented) A communications system, comprising:

a ground station having;

a beam generator for generating a plurality of beam control signals,

a digital beam former circuit receiving the beam control signals and generating a plurality of first element control signals for generating communication beams and a plurality of auxiliary element control signals for canceling interference from the side lobes of the communication beams,

a multiplexer multiplexing the first element control signals, and

an RF subsystem for communicating an RF signal corresponding to the first element control signals and the auxiliary element control signals;

a stratospheric platform having;

a payload receiver for receiving the RF signals,

a demultiplexer demultiplexing the RF signals into a second plurality of element control signals corresponding to the first element control signals and a second plurality of auxiliary element control signals and generating a plurality of communication beams in response to the second plurality of element control signals and a plurality of auxiliary element outputs in response to the second plurality of auxiliary element control signals.

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13. (Original) A system as recited in claim 12, wherein said ground station comprises a gateway station.

14. (Original) A system as recited in claim 12, wherein said ground station is coupled to a terrestrial network.

15. (Original) A system as recited in claim 14, wherein said terrestrial network comprises the internet.

16. (Original) A system as recited in claim 15, wherein the terrestrial network comprises the public service telephone network.

17. (Original) A system as recited in claim 12, wherein the gateway station comprises a plurality of multiplication gates each having a respective weight, said auxiliary element output being a function of said weight.

18-19. (Cancel)